Breakdown Method of Depreciation - Explanation

The area where most students encounter problems on this issue is understanding that in this method you actually create *three "buckets" of cost*. In each "bucket" of cost you then calculate the depreciation separately. After you calculate the depreciation separately, you then add the three respective depreciation amounts together to find the total depreciation.

Bucket #1 - Deferred maintenance. This is *always 100% depreciated* because by definition deferred maintenance is an item that needs immediate repair or replacement so because it needs immediate repair/replacement it is completely depreciated (worn out).

Bucket #2 - Short-lived items. This bucket is comprised of all the building components that are expected to wear out *during the economic life of the overall structure*. There are many components within this bucket, such as roof covering, mechanical equipment, landscaping, carpet, painting, etc. Each of these has its own economic life and depreciation schedule or expectations. For example, roofing covering may have a 20 years expected economic life and be 5 years old and water heater may have a 10 year expected life and be 2 years old. Each would have its own schedule based on the expected life and its effective age. In a complex appraisal (usually commercial not residential) the appraiser would actually set up a table with each of the items listed with their respective economic lives, effective ages, and depreciation amounts. The total depreciation is calculated for this bucket in that kind of table.

In exam problems, generally, the amount of short-lived cost and the depreciation on the short-lived items is provided as a "given" in the problem as it would be *too complex and time consuming* to have the student work out a table with the itemized economic life, effective age, and depreciation for each of these items. So in an exam problem you will not need to calculate these but will be given the totals to use in the problem.

Bucket #3 - Long-lived items. This is composed of the items that are expected to last until the building is actually demolished so the site can be re-developed with a new building. They are things like the foundation, exterior walls, roof support structure, and similar items. These items are depreciated as a single unit. So this bucket is essentially the difference in cost between the total replacement cost and the combined cost of the deferred maintenance items PLUS the cost of the short-lived items.

The procedure for the Breakdown Method involves five steps.

Step #1 – create and calculate the replacement cost for *each of the three buckets*.

Step #2 – Estimate the depreciation accrued in *each of the three buckets*.

Step #3 – *Add* the three depreciation amounts together to get the total depreciation.

Step #4 – *Subtract* the total depreciation in the three buckets from the total replacement cost of the building to arrive at the depreciated cost of the building.

Step #5 – *Add the site value* to the depreciated cost of the building to arrive at the value by the Cost Approach.

EXAMPLE:

You have a 15 year old building with replacement cost of $295,500 and a site value of $75,000. Deferred Maintenance is $5,500, Short-lived items are *given* as $55,000 with $15,000 of depreciation on the Short-lived items; The total economic life is 60 years. The table below shows the calculation of the cost approach by this method.

Replacement Cost			$ 295,500
Minus Deferred Maintenance Bucket COST		$ 5,500	
Minus Short-Lived Items Bucket COST		$ 55,000	
			$ 60,500
Equals Long-Lived Items Bucket COST			$ 235,000
Accrued Depreciation			
Deferred Maint DEPRECIATION		$ 5,500	
Short-Lived Items DEPRECIATION		$ 15,000	
Economic Life of Improvements	60		
Effective Age of Improvements	15		
Depreciation % on Long-Lived Bucket	25.00%		
Long-Lived Items Bucket COST	$235,000		
Long-Lived Items Depreciation		$ 58,750	
TOTAL DEPRECIATION			$ 79,250

Replacement Cost of Improvements	$ 295,500
Accrued Depreciation all Buckets	$ 79,250
Depreciated Replacement Cost	$ 216,250
Site Value	$ 75,000
VALUE BY COST APPROACH	$ 291,250